# **Acoustic Mesh**

## **Consumer Electronics Application Bulletin**



Gerard Daniel makes acoustic mesh for a multitude of consumer electronics applications.



Our versatile acoustic meshes add functionality and durability to personal electronics.



Acoustic mesh is tested during production to ensure it meets specified RAYL values.

Gerard Daniel has deep experience and extensive capabilities in acoustic wire mesh to support engineered solutions for the consumer electronics industry. Whether it's earbuds or headphones, cell phones or laptops, TVs or wireless speakers, we routinely collaborate with our electronics customers to deliver acoustic mesh for perfect fit and function.

**Gerard Daniel** can meet your device's durability and performance requirements using a wide range of mesh products and techniques. We provide wire mesh components to cover openings on personal electronic devices to **prevent ingress of foreign debris** such as pocket lint, sand, or crumbs. Our **hydrophobic coatings** add more functionality to the mesh, making the devices water and sweat repellant as well.

For device openings with speakers and microphones, Gerard Daniel has the expertise to control the mesh's specific acoustic impedance value. This often means providing mesh that is **acoustically transparent**, with the lowest specific acoustic impedance possible (Rayl value). Gerard Daniel can even weave mesh to a predetermined specific acoustic impedance for use in **targeted frequency dampening.** 

#### **Extensive Manufacturing Expertise**

Gerard Daniel is an industry leader in post-loom **secondary operations**, adding value to the acoustic wire mesh through heat treating, precision punching, or roll hemming to prevent fraying. To facilitate assembly-line **manufacturability** of such tiny parts, we routinely offer preassembly of mesh parts, layering the mesh with acoustic gaskets and frames, or staging parts for robotic pick-and-place just as one would with circuit board components.

#### **Gerard Daniel Capabilities**

### **Wire Mesh Secondary Operations**

Slitting

Heat treating

Coating

Punching

Roll hemming

Cleaning

Pre-assembly

Pick and place staging

#### **Weaving Acoustic Wire Mesh**

Can weave to precise Specific Acoustic Impedance values within the standard ranges of:

3 – 100+ Rayl in CGS or

30 – 1000+ Rayl in KMS

We can also weave to custom RAYL values on request.

Gerard Daniel offers value-added mesh solutions to designers and manufacturers of consumer electronics products. Whether you just need competitive pricing on production mesh products, or if you need bespoke mesh products woven to defined Rayl values and custom vapor deposition coatings, **speak to a Gerard Daniel application specialist.** 



# Gerard Daniel provides single-source responsibility for your acoustic mesh projects.

# We're a primary screen wire cloth manufacturer.



Square/Plain Weave





Crimped Wire Mesh

#### We have complete production capabilities for customization.



Slitting & Shearing



Edging



Coatings & Finishes



**Laser Cutting** 



Calendaring



Welding (TIG, MIG, Resistance, Laser)



**Heat Treating** 

#### **Gerard Daniel eliminates supply chain headaches.**

- Extensive Ready-To-Ship Product Inventory
- Customer Inventory Management
- Continuous Replenishment Services (CRS)
- Testing & Quality Control
- Airflow & Resistance Testing (Acoustics, RAYL Value)
- Custom Packaging Solutions

Contact a Gerard Daniel customer service associate to work with you on your next project.

